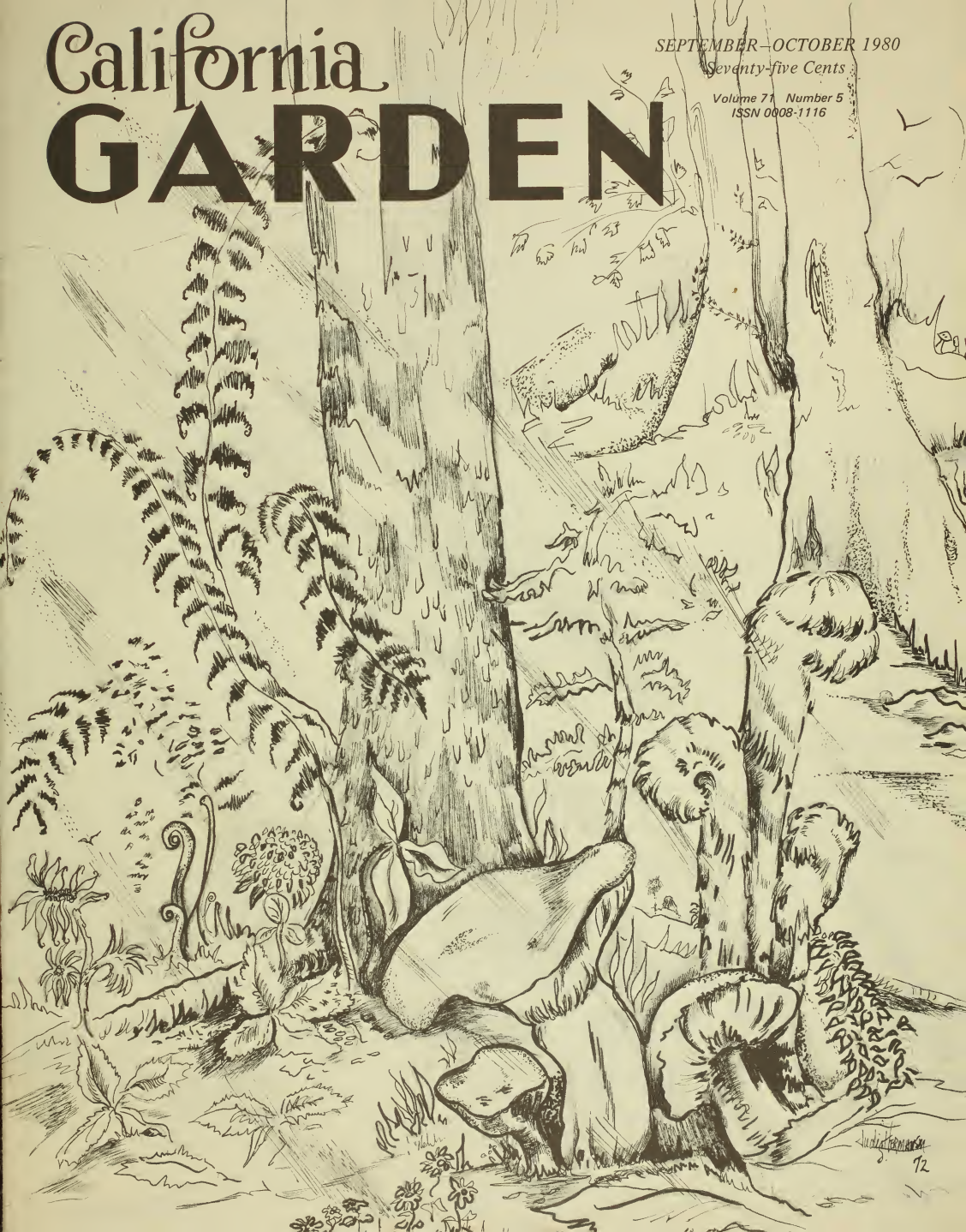
California GARDEN

SEPTEMBER–OCTOBER 1980
Seventy-five Cents
Volume 71 Number 5
ISSN 0008-1116



SAN DIEGO FLORAL ASSOCIATION

Events

SEP 18

CHRISTMAS WORKSHOP with Beverly Kulot
Commences Thursday, September 18 and every Thursday thereafter (except Thanksgiving).
10:00 a.m. to 3:00 p.m. San Diego Floral Asso. Garden Center
Casa del Prado, Balboa Park, San Diego

SEP 30

RECEPTION WELCOMING NEW MEMBERS
3:00 to 6:00 p.m. San Diego Floral Asso. Garden Center
Casa del Prado, Balboa Park, San Diego

OCT 7

"MAKE YOUR OWN FLOWER PICTURES"
All materials furnished except the frame – $5 10:00 a.m. to 3:00 p.m.
San Diego Floral Asso. Garden Center, Casa del Prado, Balboa Park, San Diego
Contacts: Beverly Kulot (222-5480) Floral Garden Center (232-5762)

OCT 7, 14, 21, 28

FLOWER ARRANGING CLASSES with Martha Rosenberg
Tuesdays–10:00 a.m. to 12 Noon Casa del Prado, Room 101, Balboa Park, San Diego
Call Mrs. Roland Hoyt for reservations (296-2757)

OCT 11, 12, 13

FIFTH ANNUAL FLOWER SHOW "BEAUTY AND THE BEASTS" & PLANT SALE
Sponsored by the San Diego Floral Association and the San Diego Wild Animal Park
10:00 a.m. to 4:00 p.m. Sat-Sun-Mon San Diego Wild Animal Park, San Pasqual, Calif.

OCT 21

SAN DIEGO FLORAL ASSOCIATION MEETING
Tuesday–7:30 p.m. Casa del Prado, Room 101
Program: "Spotlighting California Garden"

NOV 4, 11, 18

FLOWER ARRANGING CLASSES with Adrienne Green
Tuesdays–10:00 a.m. to 3:00 p.m. Casa del Prado, Room 101, Balboa Park, San Diego
Call Mrs. Roland Hoyt for reservations (296-2757)

Other Events

SEP 6, 7

IKENOBO ARRANGEMENTS & CALLIGRAPHY SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat-Sun 11:00 a.m. to 4:30 p.m. FREE

SEP 20, 21

SAN DIEGO BROMELIAD SIXTH ANNUAL SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat-Sun 11:00 a.m. to 5:00 p.m. FREE

SEP 27, 28

SAN DIEGO BONSAI FALL SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat 10:00 a.m. to 5:30 p.m. Sun 10:00 a.m. to 5:00 p.m. FREE

SEP 28

HUNTINGTON BOTANICAL GARDENS SIXTH ANNUAL BENEFIT PLANT SALE
Pasadena Center Exposition Hall (West)
300 East Green Street, Pasadena, Calif.
Sun–9:00 a.m. to 4:00 p.m.

OCT 4

HEARTLAND AFRICAN VIOLET SOCIETY FALL "MINI" SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat–10:00 a.m. to 4:30 p.m. FREE

OCT 4, 5

LA JOLLA GARDEN CLUB STANDARD FLOWER SHOW "THE 1980'S---A NEW DECADE"
Woman's Clubhouse, 715 Silverado, La Jolla
Sat–1:00 to 5:00 p.m. Sun-Noon to 4:00 p.m. FREE

OCT 18

CALIFORNIA NATIVE PLANT ANNUAL SALE
Casa del Prado, Patio "A", Balboa Park, San Diego
Sat–10:00 a.m. to 4:00 p.m.

OCT 18, 19

SAN DIEGO ORCHID SOCIETY FALL "MINI" SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat–Noon to 5:00 p.m. Sun–10:00 a.m. to 5:00 p.m. FREE

OCT 18, 19

NORTH (SAN DIEGO) COUNTY ROSE SOCIETY 14TH ANNUAL ROSE SHOW
Escondido Village Mall, Escondido
Sat–1:00 to 6:00 p.m. Sun–11:00 a.m. to 4:00 p.m. FREE

OCT 26

CONVAIR GARDEN CLUB'S CHRYSANTHEMUM & FALL VEGETABLE SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sun–1:00 to 5:00 p.m. FREE

THE SAN DIEGO FLORAL ASSOCIATION

OFFICERS

President
Mrs. Louis J. Kulot

First Vice President
Capt. Spencer Church

Second Vice President
Mrs. George Bauhan

Treasurer
Mrs. Harry McAllister

Corresponding Secretary
Mrs. Spencer Church

Recording Secretary
Mrs. Mary A. Boykins

Past President
Mrs. W. E. Beistline

DIRECTORS

Term 1978-1981
Dr. Donald P. Watson
Mrs. Martin Firth
Mrs. Eugene Whigham

Term 1979-1982
Mr. L. D. Barrows
Dr. Donald Boyer
Mrs. Lois Donahue

Term 1980-1983
Mrs. Harley Cope
Mrs. John Pasek
Mrs. William Rathmann

Park Representative
Mr. George Kempland

HONORARY LIFE MEMBERS

Anne Robinson Tedford
Alice Mary Clark
Ethel Hoyt
Ada Perry
Samuel Hamill

PUBLICATION STAFF

Editor
Robert O. Brooks

Managing Editor
Allethe Macdonald

Botanical Editor
Helen Chamlee

Consulting Editor
Dr. Donald P. Watson, Prof. Emeritus
Dept. of Horticulture, Univ. of Hawaii

Associate Editors
Skipper Cope
Bill Gunther

Department Editors

Horticulture	George James
Historical	Ethel Hoyt
Native Plants	Helen Chamlee
Herbs	Josephine Gray
Vegetables	Rosalie Garcia
Circulation	Penny Bunker
Advertising	Penny Bunker

California GARDEN

Library of Congress No. ISSN 0008-1116

Published Since 1909
by
SAN DIEGO FLORAL ASSOCIATION
and
GARDEN CENTER
Casa del Prado, Balboa Park, San Diego, CA 92101
Mon. through Fri. 10:00 to 3:00
232-5762

SEPTEMBER — OCTOBER 1980

VOLUME 71 NUMBER 5

Front Cover: *Enchanted Forest* drawing by Judy Hermanson. Mrs. Hermanson is an art major teaching in the San Diego Unified School District.

CONTENTS

133 THE GROUND COVER OF YOUR CHOICE
HELEN V. CHAMLEE

137 WINTER LAWN CARE
GEORGE JAMES

139 THE STRANGEST FLOWERS
SHEILA JOHNSON

140 FANTASTIC FICUS
SHARON SIEGAN

144 A GARDEN TOUR
BILL GUNTHER

148 WINTER COLOR WITH ANNUALS AND PERENNIALS *STUART H. MACDONALD*

152 SOME THOUGHTS ON PROPER IRRIGATION
E. ROBERT BICHOWSKY

153 THEVETIA
ALLETHE MACDONALD

155 NOW IS THE TIME
PENNY BUNKER

159 BOOK REVIEWS
RUSSELL P. MacFALL

© CALIFORNIA GARDEN (USPS 084-020) is a non-profit publication of the San Diego Floral Association, a non-profit horticultural organization. The magazine is published bi-monthly for $4.00 per year; $7.50 for two years, by San Diego Floral Association, Casa del Prado, Balboa Park, San Diego, California 92101. Manuscripts are invited. Manuscripts and illustrations submitted will be handled carefully, but we cannot assume responsibility for their safety. All opinion expressed are those of the author and do not necessarily reflect the views of the editors of the San Diego Floral Association. "Hortus Third" is the authority for all botanical names used in this magazine. Entered as second-class matter, December 8, 1910, at the Post Office of San Diego, California, under the Act of March 3, 1879.

POSTMASTER: SEND FORM 3579 ADDRESS CHANGES TO:
CALIFORNIA GARDEN,CASA DEL PRADO,BALBOA PARK,SAN DIEGO,CA 92101

The San Diego Floral Association & Garden Center

Casa del Prado, Balboa Park
San Diego, CA 92101
(714) 232-5762

Mon-Fri 10:00 to 3:00

Under the sponsorship of
The Park and Recreation Dept.
City of San Diego

Pres: Mrs. Louis J. Kulot *(222-5480)*
2732 Azalea Dr., San Diego 92106

FLOWER ARRANGERS' GUILD
Pres: Mrs. E. Rees Gould (475-8996)
2111 Rachel Ave., San Diego 92139
1st Thurs., Casa del Prado, 9:00 a.m.

Affiliate Members

ALFRED D. ROBINSON BRANCH, AMERICAN BEGONIA SOCIETY
Pres: Mrs. Peter P. Lee (239-3196)
1852 - 31st St., San Diego 92102
2nd Tues, Home of Members, 10:30 a.m.

AMERICAN BAMBOO SOCIETY
Pres: Mr. Richard A. Haubrich (481-9869)
1101 San Leon Ct., Solana Beach 92075

BALBOA PARK AFRICAN VIOLET SOCIETY
Pres: Mrs. Colleen Winchell (479-6433)
2412 Morningside St., San Diego 92139
4th Mon, Casa del Prado, 7:30 p.m.

BERNARDO GARDENERS CLUB
Pres: Mrs. John C. Unger (485-5506)
17481 Montero Rd., San Diego 92128
3rd Thurs, desig Rancho Bernardo Clubs, 1:30 p.m.

CALIFORNIA NATIVE PLANT SOCIETY
Pres: Mr. Michael Evans (298-3385)
3640 - 8th Ave., San Diego 92103
4th Wed, Casa del Prado, 7:30 p.m.

CONVAIR GARDEN CLUB
Pres: Mrs. Virginia Soderberg (582-7098)
6197 Arno Dr., San Diego 92120
1st Wed, Casa del Prado, 7:30 p.m.

EXOTIC PLANT SOCIETY
Pres: Barbara Northington (462-4762)
6155 Sarita St., La Mesa 92041
3rd Wed, 1235 Avocado, El Cajon, 7:30p.m.

FALLBROOK GARDEN CLUB
Pres: Mrs. Dean Miller (728-9327)
4650-172 Dulin Rd., Fallbrook 92028
Last Thurs, Fallbrook Woman's Club

FLEURS DE LEAGUE
Pres: Mrs. R. Clemson Griggs (454-6945)
6601 Avenida de las Pescas, LaJolla 92037
2nd Mon, Home of Members, 10:30 a.m.

IKEBANA INTERNATIONAL, CHAPTER 119
Pres: Mrs. Richard R. Davison (466-4575)
7046 Murray Park Dr., San Diego 92119
4th Wed, Casa del Prado, 10:00 a.m.

LA JOLLA GARDEN CLUB
Pres: Mrs. Michael C. Addison (459-6198)
6112 Waverly Ave., La Jolla 92037
3rd Wed, La Jolla Woman's Club

LAS JARDINERAS
Pres: Mrs. Wm. W. Crawford, Jr. (223-0642)
727 Stafford Pl., San Diego 92107
3rd Mon, Home of Members, 10:00 a.m.

ORGANIC GARDENING CLUB
Pres: Mr. Andrew Thomas (454-2831)
5735 Chelsea Ave., La Jolla 92037
3rd Fri, Casa del Prado, 7:30 p.m.

PALOMAR CACTUS & SUCCULENT SOC.
Pres: Mr. Craddock Monroe (744-9276)
2110 Low Chaparral Dr, San Marcos 92069

PALOMAR DISTRICT, CALIFORNIA GARDEN CLUBS, INC.
Dir: Mrs. P. P. Puddy (487-2038)
16303 Avenida Florencia, Poway 92064

POINT LOMA GARDEN CLUB
Pres: Mrs. Martin Firth (224-0471)
1217 Alexandria Dr., San Diego 92107
2nd Wed, San Diego Federal Savings, Rosecrans & Cannon, 10:00 a.m.

SAN CARLOS GARDEN CLUB
Pres: Mrs. Max Thompson (464-2548)
6886 Casselberry Dr., San Diego 92119
4th Tues, Home of Members, 9:30 a.m.

SAN DIEGO AROID SOCIETY
Pres: Bill Virden (272-3274)
4657 Shoshoni St., San Diego 92117
Meets—Home of Members

SAN DIEGO BONSAI CLUB, INC.
Pres: Mr. C. A. Puliafico (748-2561)
13065 Tuscarora Dr., Poway 92064
2nd Sun, Casa del Prado, 1:00 p.m.

SAN DIEGO BOTANICAL GARDEN FOUNDATION, INC.
Pres: Mr. David Grimes (755-0798)
13651 Nogales Dr., Del Mar 92014

SAN DIEGO BROMELIAD SOCIETY
Pres: Dr. Norman Lurie (278-6158)
10436 El Comal Dr., San Diego 92124
1st Thurs, Byzantine Catholic Church, 2235 Galahad Rd, Sierra Mesa, 8:00 p.m.

SAN DIEGO CACTUS & SUCCULENT SOC.
Pres: Mr. Thomas Hamecher (440-6245)
996 Terrace Crest, El Cajon 92020
2nd Sat, Casa del Prado, 1:30 p.m.

SAN DIEGO CAMELLIA SOCIETY
Pres: Mr. Eugene Snooks (454-6659)
6114 La Jolla Blvd, La Jolla 92037
3rd Wed, Casa del Prado, 7:30 p.m.

SAN DIEGO COUNTY DAHLIA SOCIETY
Pres: Mr. Gerald Lohmann (279-5235)
6616 Rockglen Ave., San Diego 92111
4th Tues, Casa del Prado, 7:30 p.m.

SAN DIEGO COUNTY ORCHID SOCIETY
Pres: Mrs. R. E. Hammond (426-6831)
1341 Park Dr., Chula Vista 92011
1st Tues, Casa del Prado, 7:30 p.m.

SAN DIEGO DAYTIME AFRICAN VIOLET SOCIETY
Pres: Mrs. Dorothy Grimsby (282-4572)
4557 Bancroft St. No. 3, San Diego 92116
2nd Mon, Fellowship Hall, Christ United, 12 Noon, Methodist Church, 3295 Meade

SAN DIEGO EPIPHYLLUM SOCIETY
Pres: Mrs. Fern LaBorde (469-3965)
6756 Vigo Dr., La Mesa 92041
2nd Wed, Casa del Prado, 7:30 p.m.

SAN DIEGO FUCHSIA & SHADE PLANT CB.
Pres: Mr. Howard T. Ferguson (278-1797)
2412 Fleetwood St., San Diego 92111
2nd Mon, Casa del Prado, 7:30 p.m.

SAN DIEGO GERANIUM SOCIETY
Pres: Mrs. James Koho (286-0818)
4810 Loukelton Way, San Deigo 92120
2nd Tues, Casa del Prado, 7:30 p.m.

SAN DIEGO GESNERIAD SOCIETY
Pres: Mr. Mike Ludwig (295-1071)
644 Torrance, San Diego 92103
1st Thurs, Casa del Prado, 7:30 p.m.

SAN DIEGO-IMPERIAL COUNTIES IRIS SOCIETY
Pres: Mrs. Eugene Cooper (285-7938)
4444 Arista Dr., San Diego 92103
3rd Sun, Casa del Prado, 1:30 p.m.

SAN DIEGO ROSE SOCIETY
Pres: Mrs. Esther Barksdale (222-4093)
3756 Milan St., San Diego 92107
3rd Mon, Casa del Prado, 7:30 p.m.

SAN DIEGUITO GESNERIAD SOCIETY
Pres: Mrs. Roman Shore (433-3532)
4471 Estada Dr., Oceanside 92054

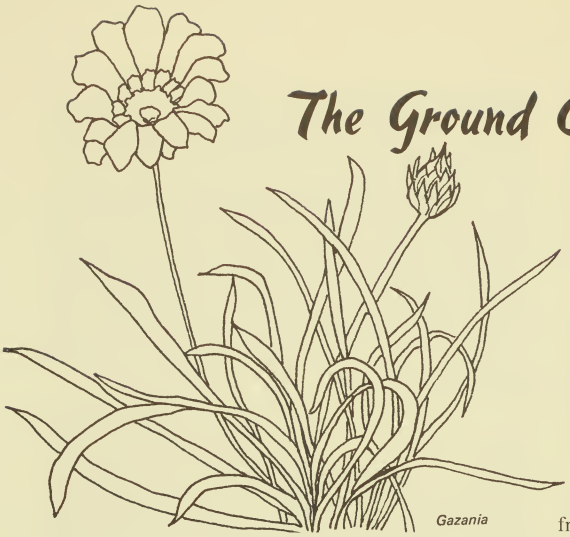
SOUTHWEST GROUP, JUDGES COUNCIL
Pres: Mrs. Frank Thomas (583-7045)
6819 Claremore Ave., San Deigo 92120
1st Wed, Casa del Prado, 10:30 a.m.

SOUTHWEST HEMEROCALLIS SOCIETY
Pres: Mrs. Wm. VanDusen (445-3024)
P. O. Box 611, Alpine 92001
4 mtgs per yr, Glendale Fed Savings & Loan 898 E. Vista Way, Vista

UNIVERSITY CITY GARDEN CLUB
Pres: Mrs. Ronald Scarafone (453-5144)
3214 Wellesly Ave., San Diego 92122

VILLAGE GARDEN CLUB OF LA JOLLA
Pres: Mrs. Warren Slaughter (582-5725)
6354 Newsome Dr., San Diego 92115
4th Thurs, La Jolla United Methodist, 6063 La Jolla Blvd, La Jolla, 1:00 p.m.





Gazania

The Ground Cover of Your Choice

by *Helen V. Chamlee*

Drawings by KRISTINE ERICKSON

HOW DO YOU go about making a choice among the plants that creep, spread, trail, lie, root, sprawl, crawl, flop, or otherwise stay close to the ground? It is like choosing among wallpapers—their number is legion.

Step one is to answer the question, what do I want it to do for me? A ground cover can be a green grass lawn to be played on or admired, a lawn substitute of non-grass plants that can take foot traffic, a barrier or divider, a band of glowing color or a monotone in cool green, a temporary space filler between newly set out shrubs or trees, a cover for a bulb bed, a stabilizer of loose fill, a deterrent to wildfire, or a source of fragrance. The ground could be covered with black plastic or wood chips, but for the dyed-in-the-wool gardener to whom I address this article, nothing but living plants will serve.

We are agreed that no other plant makes as good a play area as grass. We also agree that keeping grass lawns presentable requires tremendous and more or less continuous investment of time, energy, and water-investments that are being questioned more and more often as energy and water shortages tighten their grip on our household economy. Are there alternatives?

One may ask why not use native grasses that grow naturally without water in summer. The answer is easy but hard to take; it is not what we want to hear. There are no good turfing grasses among our native plants. We are aware that the best lawn grasses from the purely aesthetic point of view, the ones that satisfy the yearning for smooth green velvet, do not like our climate, soil, or water. To paraphrase the old saying, if God had wanted us to have bright green grass all the year around he would have arranged for us to have rain in the summer. But since He did not, we ourselves must provide the rain, or use a variety of plants that innovative Californians have experimented with over the years to give the visual effect of mowed grass.

To date the most successful of these has been *Dichondra micrantha*, formerly sold as *D. repens*, and usually called simply dichondra. Like our best lawn grasses it is native to more humid regions. California has its own native species, but that one can not be coaxed into forming good turf. Like many another of our perennials, it goes dormant in summer and there we are on that circle again.

As a lawn substitute, dichondra will not save water but it will save labor as it seldom needs mowing unless in deep shade. It stands moderate traffic, is a satisfying green color the year around, and is more interesting in texture than a grass lawn. However, many garden situations and a growing number of gardeners do not call for perfectly flat vegetation, and other kinds of plants by the hundred are ready to leap into the breach and cover our ground for us.

• THE TINY LITTLE ONES

You might want tiny plants for the finishing touch to a big tub or pot, for a small mound, for the crevices between stepping stones or log steps, for a narrow strip between a wall and a walk. For such spaces you stay away from rampant growers unless

you like to spend your life trimming edges. Thought of this way—one square foot has four feet of edge—this is no place for fast growers.

For that foot-wide strip next to a path, you take care to avoid any plants with spines, prickles, or burs that might injure passing people or damage their clothing. On the other hand, there are places you might wish to discourage traffic, where a larger spiny plant such as holly or carissa would be just right.

Small plants for small spaces are most easily selected from a large nursery. There you can ask questions, and you can compare texture, color, leaf size and flowers of the many species on display. For example, you would surely want to see them before choosing between the two pearlworts. Both are tough little plants that will grow in sun or light shade and will take some foot traffic, but one is emerald green and the other yellow gold. *Sagina subulata*, the green one, is called Irish moss, though not a moss but a minute flowering plant; the gold one, called Scotch moss, is *S.* 'Aurea.'

Other little charmers that stay in the inch or two, or three, height are Corsican mint, *Mentha requienii;* mazus, *M. reptans*; laurentia, *L. fluviatilis*; herniaria, *H. glabra*; and some of the creeping thymes, *Thymus* species. Then there is the delicate little baby's tears (green tears?), *Soleirolia soleirolii (Helxine)*, that requires shade and constant moisture and cannot stand being walked on.

Only a little taller is that stemless, narrow-leaved member of the lily family, *Ophiopogon japonicus*, mondo grass. It is good at swallowing leaves, provided they are not too large—not sycamore, but ash leaflets, or Australian tea or elm leaves and others in that size range. Large leaves can be raked off.

Not a flowering plant but a true miniature grass is that lumpy zoysia, *Z. tenuifolia*, usually called Korean grass. Does not need mowing, in fact, can not be mowed because of its growth habit.

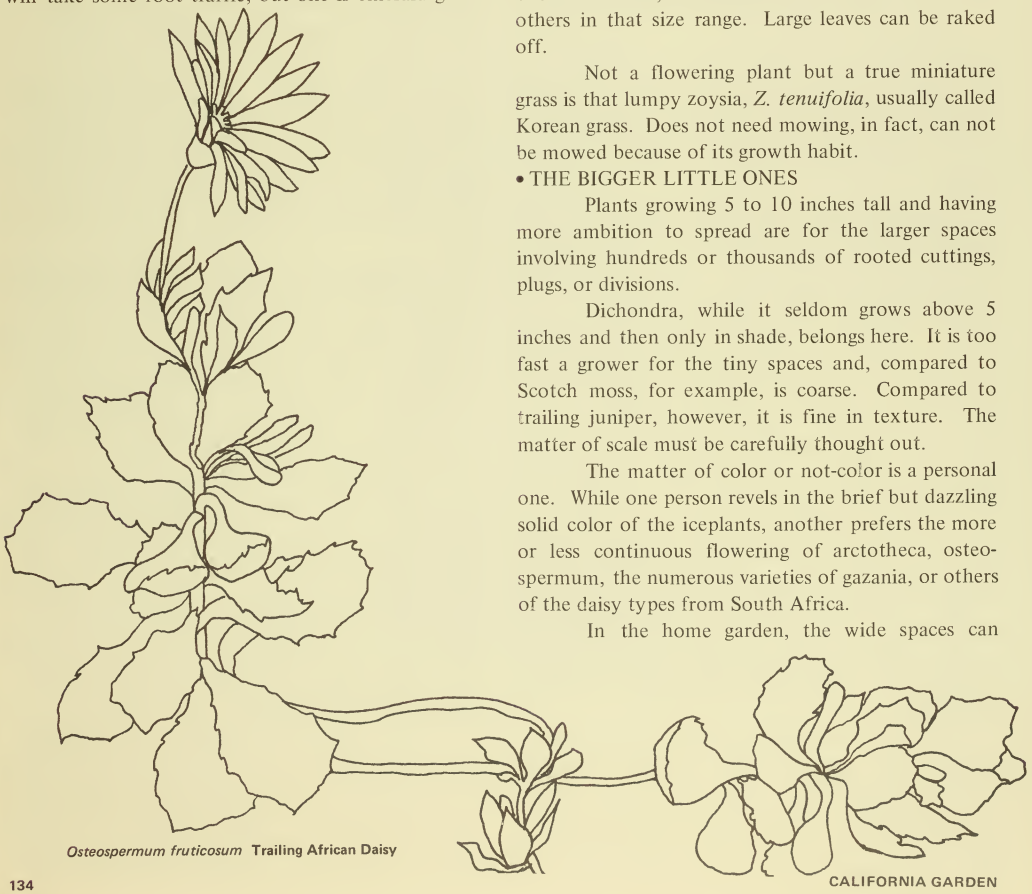
• THE BIGGER LITTLE ONES

Plants growing 5 to 10 inches tall and having more ambition to spread are for the larger spaces involving hundreds or thousands of rooted cuttings, plugs, or divisions.

Dichondra, while it seldom grows above 5 inches and then only in shade, belongs here. It is too fast a grower for the tiny spaces and, compared to Scotch moss, for example, is coarse. Compared to trailing juniper, however, it is fine in texture. The matter of scale must be carefully thought out.

The matter of color or not-color is a personal one. While one person revels in the brief but dazzling solid color of the iceplants, another prefers the more or less continuous flowering of arctotheca, osteospermum, the numerous varieties of gazania, or others of the daisy types from South Africa.

In the home garden, the wide spaces can



Osteospermum fruticosum **Trailing African Daisy**

become cluttered and restless when planted with the many bright colors that lift the spirit as one drives a freeway or views a public park. In those places you see them and pass on. You can gasp, "Gorgeous," as you enjoy them to the full, but remember you do not live there. (And do not forget that most of those daisies close up in the afternoon and on cloudy days.) Those gardeners who think cool is better than hot stay with the simple greens. Individual flowers, when not massed but widely spaced, glow like jewels in a setting of soft green.

Fortunately the list of plants in each category is a long one.

There must be at least 40 prostrate or low growing juniper cultivars available. Of ivy, *Hedera*, there are dozens. Here in the west, Algerian ivy, *H. canariensis*, is effective as a stabilizer of steep banks, though too coarse and invasive for many other garden situations. Fortunately the cultivars of English ivy, *H. helix*, are so many and so varied that one can be found to fill any need, and of course in pots they are deservedly popular. Miniatures with leaves the size of a quarter are admirably suited for miniature gardens of all kinds.

Another all-green miniature creeper, with even smaller leaves, is the creeping wire vine, *Muehlenbeckia axillaris.* The larger *M. complexa* becomes a huge tangle of wire-like stems. Beware of this one.

With pretty but modest flowers of light violet is *Vinca minor*, a trailer with closely set dark green leaves of great elegance. *Vinca major*, the periwinkle or trailing myrtle, is taller (to 2 feet in shade) , coarser, and invasive. However, it is a soil binder par excellence in out of the way places, and persists for long periods without irrigation.

Fairly new on the scene is the prostrate myoporum (my-OPP, please) *M. parvifolium*. That name means small-leaved.

Then there are the strawberries and their look alikes. *Fragaria chiloensis* and its hybrids are available in flats. A cousin of the strawberry is *Potentilla verna*, with yellow flowers. Another cousin is *Duchesnea indica*, bearing yellow flowers and attractive red, flavorless but harmless, "strawberries."

Should you be in the area, do visit the Los Angeles State and County Arboretum at Arcadia, California, where you will see all of these plants and many more set out in sizable blocks for comparison.

• FOR FRAGRANCE

A nice touch, and I do mean touch, is to have aromatic foliage where it will be walked on, or brushed against, or pinched.

A few fragrant plants, starting with the smallest: chamomile, *Chamaemelum nobile*; Corsican mint, *Mentha requienii*; creeping thyme, *Thymus praecox arcticus; Artemisia*, various low growing species; lavender, *Lavandula*, dwarf species; garden sage, *Salvia officinalis*; sweet woodruff, *Galium odoratum*; prostrate rosemary; lavender cotton, *Santolina chamaecyparissus* (gray) and *S. virens* (green).

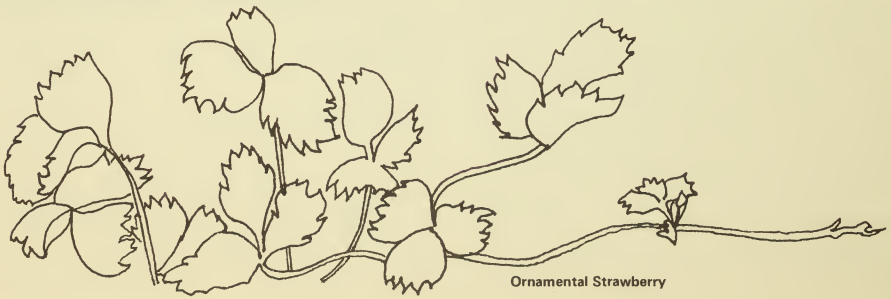
For fragrant flowers nothing can be sweeter than violets, and there are prostrate gardenias, carissas, and the popular star jasmine, *Trachelospermum jasminoides*.

The place to shop for most of these is in the herb farms.

• TO CONTROL EROSION

Sandy soil, unstable fill, newly graded areas—these are subject to erosion by wind and water. If we want something better than tumbleweeds and wild oats out there we have to take steps. Erosion is all right in its place—the Grand Canyon—but few of us can accommodate anything like that in our back yards.

Plants act in two ways to reduce or prevent erosion of our topsoil. A thick covering of vegetation



Ornamental Strawberry

prevents wind or water from moving the surface soil particles and the network of roots which ties a loose surface to a denser substrate acts as a stabilizer. So does asphalt, but plants are prettier. Loose soil on a bank is like shingles laid on a roof. Shingles do not stay in place unless nailed down; neither will the loose soil. Roots are nature's nails and the longer, tougher and more numerous they are the better the bond.

The many succulents—carpobrotus, malephora, delosperma, and their like, while fine on level ground or gentle slopes, are notoriously ineffective on steep banks, as has been demonstrated these last two winters of higher than usual rainfall. Their weak shallow roots do not penetrate deeply enough into solid earth to hold the weight of their water-filled foliage plus the water-filled earth they are clinging to. So the bank slides. When used on steep banks they should be interplanted with shrubs or trees known for long tough roots. These should be planted at the time the iceplants are set in, owing to the difficulty they have in establishing themselves on a slope already occupied by voracious succulents harboring a multitude of snails.

• THE MOUNDING AND BILLOWING ONES

On banks where no traffic is expected and on the level where no traffic is desired, larger, rougher-looking ground covers are appropriate. With a little searching you can find some that are easily confined to small spaces. An example is the compact sprengeri—*Asparagus densiflorus* 'Sprengeri Compacta' or *A. sarmentosus* 'Compacta.' Grows in sun or shade, stands drought, looks soft but feels prickly. Many of the junipers are suitable also for small or narrow spaces.

For larger areas the ways to go are beyond counting. Dwarf coyote brush has become a standby. It is tough, long-rooted, drought resistant, evergreen, and sheds no seeds to clutter the landscape with unwanted offspring.

Have you thought of roses? The evergreen banksias, *Rosa banksiae* 'Alba' with double fragrant white flowers, or 'Lutea' with double yellow flowers? No pests on these. A nearly everblooming larger rose is 'Mermaid.' It will spread over a bank, rooting as it goes and displaying huge single blooms of soft cream-yellow for many months of the year. It is armed with fierce prickles, but then you are not going to walk on that bank anyway.

THESE ARE JUST a few examples of the way to think when you go out to choose. A summary of ground cover plants would fill a book. As a matter of fact, there already are two comprehensive books for western gardeners. Sunset's book is entitled *Lawns and Ground Covers*. Ortho's book is entitled *All About Ground Covers* and subtitled "For slopes, walkways, rock gardens, wide open spaces, and nooks and crannies." Wouldn't you say that covers the ground? □

McDANIEL'S MINIATURE ROSES



BUSH • TREE • CLIMBER • HANGING BASKET

HARDY AND EVERBLOOMING
SHIPPED ALL YEAR

7523 ZEMCO ST.
LEMON GROVE, CA 92045
Please Phone (714) 469-4669

SPECIMEN PLANTS
FOR YOUR HOME AND FOR YOUR GARDEN
ALL SIZES
AND VARIETIES



Bennett's
GARDEN CENTER

7555 EADS AVE.
LA JOLLA, CA 92037 454-4241

GARDEN BAR

Easy to make for under $5.00. Have cool drink, add to gardening pleasure. Send $1.00 for scale drawing, materials list, and simple instructions to GARDEN BAR, P. O. Box 4860, Washington, DC 20008.



WINTER LAWN CARE

by *George James*

LAWNS IN SOUTHERN California are often composed of grasses of different kinds because they were originally seeded with a mixture of several cool season grasses, such as blue grass, rye, or fescue, to which white Dutch clover was often added. These grasses are marginal in our climate and as they became weaker and the turf thinned, Bermuda grass invaded. Dichondra is often found, in lawns of cool season grasses or Bermuda, because in some cases it was planted and in others seeded itself from other plantings. This conversion, from cool season to Bermuda, has long been recognized and now Bermuda is often planted at the start. The common Bermuda grass, which grows wild, can be started from seed, but there are hybrids that can only be started from stolons or sprigs, or by planting turf.

Fall is a good time to fertilize a lawn, regardless of the kinds of grass found in it, for it is in fall that the cool season ones make the best root growth, and fertilizer at this time will encourage them to make side shoots, called tillers, that will thicken the turf. Fertilization of Bermuda in the fall provides a supply of food that will enable it to retain its green color longer. A commercial fertilizer that has been especially made for use on lawns is the best material to use. Such a fertilizer will have a much higher level of nitrogen than of phosphorus or potash, its formula will be 22-4-4, or something similar, with the first number much greater than the other two. Mow the lawn before applying the fertilizer, follow directions on the container for the amount to use, and water well to wash the fertilizer off the foliage and into the soil. Fertilizer left on the foliage can be carried away the next time the lawn is mowed. There are fertilizers that contain a material that will remove existing broad leaved weeds, and these will do much to control dandelions and similar pests, but remember, that such fertilizers will also kill dichondra, clover, and other broad leaved plants. Other fertilizers may contain a material that will destroy sprouting seeds of weeds. Such a fertilizer is worthwhile on a lawn that has been badly infested with crab grass, an annual that dies in the late fall. It will destroy the seeds so the lawn will be free of the pest the next year. Such a fertilizer is also effective in the control of annual blue grass, which is more prevalent during the cold months, and it will also destroy the seeds of most other weeds that occur in lawns. Of course, if a lawn, or spots in a lawn, are to be reseeded, such a fertilizer should not be used until after the lawn seed has sprouted.

During winter the Bermuda in lawns turns brown and is unsightly. This condition can be mitigated by overseeding in the fall. A cool season grass that is hardy and that will sprout quickly is the best for this. The lawn should be cut as low as possible (scalped) so the seed can fall to the ground and not be lodged in the top growth where it would not germinate. Annual rye is most often used, but there are some improved strains of rye that could be used; these would be of slower growth, have a finer leaf, and a greener color. Use 1 pound of seed to each 100 square feet of area and after seeding cover lightly with a fine mulch to hold water. Water several times a day so that the mulch is always moist. Use a fine spray and point the stream upward so the water will fall like rain. Be careful not to wash the seed away. Sprinkle until the water pools on the surface, then stop, for water added after that will run instead of soaking in and will wash the seed away. In spring the rye will die out and the Bermuda will become green again.

As Bermuda lawns become older they develop a thatch—an accumulation of dead plant parts that decay slowly and crossing above ground runners.



"A NEIGHBOR WHO CARES"

Photo by JIM CHISM

This layer prevents fertilizer from reaching the ground, inhibits penetration of air and water, and shows as brown patches when the lawn is mowed. The thatch can be removed by renovation which is best done in fall because it will get the Bermuda out of the way before it turns brown, and there will be less weed seed germination at this time of the year than in spring or summer.

Renovation can be done by the home gardener or it can be contracted to a lawn maintenance firm. If one intends to do it himself, he should have a trailer or a small truck at his disposal, for there will be an immense amount of thatch to haul to the dump. The thatch can be removed with a rake, but this is hard work and not as effective as if done with a machine. Some tool rental agencies have motor driven renovators that can be rented. These are similar to a power lawn mower except they have teeth that revolve instead of mower blades. The teeth lift and thin the Bermuda runners and the accumulated dead material, leaving the roots and a few runners from which the Bermuda will start the next spring. The teeth also loosen the soil to make a good bed for the seed that will be planted.

It takes several trips over the lawn with the renovator to thin it to the desired condition. After the first trip the loose material is raked up and removed so that on the next trip the teeth can penetrate to their full depth. The second trip, if possible, is made at right angles to the first, to pick up runners that were parallel to the teeth the first time. This loose material is raked and removed. A third trip can be made, unless it appears there is little to no material that will be removed. When this point is reached the lawn should be mowed with a mower set to cut as low as possible. The renovator will leave a strip next to paths and around sprinkler heads that is unthinned; this can be cut off close to the soil with a shovel. If there are high or low places in the lawn these can be leveled at this time by cutting or filling. The lawn is then seeded (following directions given for overseeding) and watering is started as soon as the seed is covered. Fertilizer may be used at the time of seeding, or after the first mowing.

The renovator will remove creeping plants, such as dichondra and lippia, and will not remove clump grasses. The clumps can be dug out before the seed is planted. Sprinklers will be damaged if struck by the renovator teeth, and heads should be unscrewed and removed if this is possible, otherwise, marked with a stout stake.

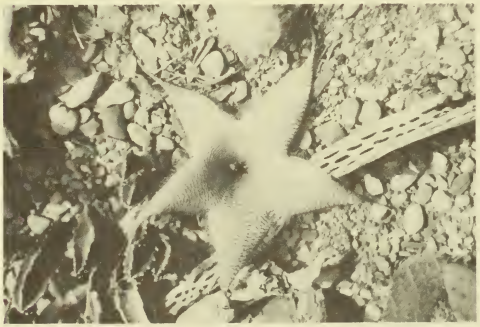
Renovation every second or third year should keep thatch under control, with close mowing and overseeding during the alternate years, so that the appearance is attractive during those winters. Mowing a Bermuda lawn short during the year will delay the accumulation of thatch, as will the removal of clippings. However, close mowing will shorten the life of any cool season grasses that are present.

A Bermuda lawn does develop thatch that must be removed from time to time if the lawn is to look and act its best. A lawn composed entirely of cool season grasses will not have this trouble but will require more care, will not stand as much traffic, will be subject to both insect and fungus pests, and will have a much shorter life. □

The Strangest Flowers

by *Sheila Johnson*

DO YOU THINK that flowers always have a lovely fragrance? You may be surprised to learn that the flower you see in the picture, *Stapelia nobilis*, has a smell like rotten meat. The plant is called a "carrion cactus," although it is not a true cactus. The plant is named for the odor of the flowers, which imitates the smell of carrion.



The carrion cactus belongs to a group of plants named stapeliads, most of which come from Africa and Asia. Almost all the stapeliads have five-pointed flowers, and for that reason they are sometimes commonly called "starfish flowers." The flowers not only smell like rotten meat, but many of them resemble meat in color and texture. This is because stapeliads are pollinated by flies which are attracted by the rank odor and meat-like appearance of the flowers.

Stapeliads sound like pretty disgusting plants, but the flowers have a strange beauty. The petals are usually covered with brown, black, purple or white hairs (you can see the hairs on this flower if you look closely.) The hairs wave gently in the breeze. The flowers themselves have a fleshy texture and are sometimes wrinkled. They often have a pale yellowish or brown background which is speckled or striped in shades of red, orange, brown, purple or green.

Stapelia variegata is one of the more common and easily grown of the group. It likes a rich but well-draining soil and plenty of water, except in the winter. From about November to March these plants are dormant, and may shrivel up and look as though they're dying. They usually snap back to life after the first spring watering, however, and bear a profusion of creamy, brown spotted flowers in the spring and fall. They do well outside all year in pots in our mild California climate. The smell is not strong enough to be offensive unless you are quite close to the flower, and they make a fine display as well as a great topic of conversation. □



South Coast Botanic Garden Foundation, Inc.

FALL FOLIAGE & GARDEN TOUR

NEW YORK
PENNSYLVANNIA
DELAWARE
NEW JERSEY

9 DAYS, 8 NIGHTS
OCTOBER 23--31, 1980

Take advantage of an exciting botanical tour covering 4 states during 9 full days. Delight to some of the world's most prestigious gardens, meticulously manicured with decades of loving attention. Enjoy exciting New York City with it's Broadway plays and fine dining experiences.

A complete tour, professionally-guided by the well-known *Dr. Bruce McAlpin*, creator of the famous Fern Gallery at the New York Botanical Gardens; including visits to Pennsylvania's reknowned Longwood Gardens, Brooklyn Botanical Gardens plus visits to at least 4 other fine botanical facilities.

Add the wonderful New York night life to the splendid fall foliage and beautiful countryside for a truely well-rounded trip. Tour includes airfare, welcome cocktail party in The Fern Gallery, visit to the Empire State Building, a Broadway play, cruise around Manhattan, entrance fees, all tours and transfers and a Farewell Dinner.

Sound exciting? It is and so is the cost: $970 —

For information contact: *TOBY BRENNER*
(213) 541-7333 or 627-3511

Fantastic Ficus

by *Sharon Siegan*

Photos by R. P. MacFall

GROWING JUST OUTSIDE of the Natural History Museum in San Diego's Balboa Park, is an arboreal jungle gym. Like the ribs of an inverted umbrella, its myriad trunks cloned from a single stem encircle itself. These trunks are aerial roots, dropped down and rerooted, banyan style. But this is not one of the banyans (*Ficus benghaiensis*) fabled in history; it is *Ficus macrophylla*, the Moreton Bay fig. To visiting children, it is an irresistible attraction, and young climbers swarm over its elevated roots. Higher hanging root clusters, matted into grotesque shapes, show little promise of their eventual development into still other trunks.

La Jolla, California, also has its landmark specimen, which stands guard impressively over the Contemporary Art Museum. But here the widespread trunk-roots are off limits to foot traffic.

F. macrophylla are truly fantastic trees, yet they are clearly related to the common container ficus which grace so many homes across the country. Examine their broad leathery leaves and you will note the marked similarity to *F. elastica* (rubber plant) foliage. Curiously, it is the rubber plant leaves which appear to be the oversize version. However, it must be remembered that *F. elastica*, when planted in the ground and given proper cultivation, will shoot up 30 to 40 feet, although never matching the spread of the Moreton Bay fig.





Ficus macrophylla
MORETON BAY FIG TREE

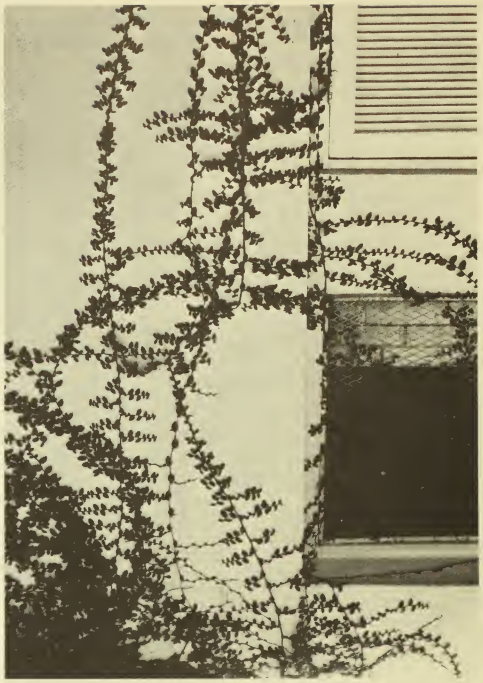
upper:
Elevated roots attract young climbers...

left:
Hanging root clusters are matted into grotesque shapes...

Spectacular as *F. macrophylla* is, it is no match for *F. benghalensis*. One of these trees is reputed to have accommodated Alexander the Great's entire army of some 7000 men beneath its spreading shelter! Legend has it that they encamped within the two thousand foot circumference of the three thousand trunks—certainly a heroic one-tree forest! That was in the fourth century B.C. Two centuries earlier, the Gautama Buddha immortalized another banyan, the *B. beghalensis* under which he allegedly dined on milk and rice just prior to his enlightenment. *F. religiosa*, also known as the sacred fig, Bodhi, Bo or Peepul, gained some of its names in recognition of its being the ficus under which actual enlightenment reputedly occurred. And *F. religiosa*, as reported in this magazine, May-June 1980, is often grown as a container plant, valued for its unusual pointed foliage. As a mature tree its spread is not remarkable, but its fluttering foliage provides a wistful echo chamber for the rustling wind.

Another ficus that adopts the banyan growth habit is *F. rubiginosa*. This Australian native grows well along the coast and in inland valleys, provided it receives ample warmth. It is proximity to the moist ocean air which seems to induce the development of downhanging aerial roots, as elsewhere it is likely to be simply another tall, rounded crown tree with single (or divided) trunk. The species is commonly called rustyleaf fig, because of the characteristic rusty-woolly underside.

Very different in growth habit is *F. pumila* or *repens*—the creeping fig. It begins life as a diminutive, slow-climbing vine, which can only be coaxed into speedy growth by cutting back to the ground soon after planting. The delicate, heart-shaped leaves are closely strung, flat, alternate, fanning out into arcs of tracery and creating a striking pattern against white stucco wall or fence. *F. pumila* will scale any wall, its aerial roots clinging artfully and tenaciously to stone, brick, wood, or plaster. But all of this delightful effect results from deceptive, juvenile growth. At maturity, the vine is transformed. The leaves enlarge and change shape, and bearing branches protrude, heavy with fruit. The creeper has become a colossus, rapidly enveloping everything in sight. For those who would tame this jungle growth, prune the vine severely; with regular and ruthless cutting it will remain neat and flat. Alternatively, there is a cultivar 'Minima,' bred to be docile and petite of leaf throughout its life span.



Ficus pumila
CREEPING FIG
Striking pattern against white stucco wall...

F. pumila is an easily cared-for vine often selected to hide wall imperfections. It should not be planted on those west or south facing walls which are subject to intense sunlight.

Although *F. carica*, the edible fig, lacks the spectacular growth attributes we have been considering, it too is worthy of inclusion as "fantastic." The species is deciduous, originating in the Mediterranean, where it bore a crop that was valued from early times as a staple and a sweetener. The Spaniards brought it to the new world, and the padres took it northward in their religious march. All of the California missions, from 1700 on, cultivated *F. carica*, and the beautiful gnarled tree forms may still be seen in some of these sites.

The leaf of *F. carica* is well-known to us as a modesty cover. The classical Greeks sculpted it in marble to act as a G-string equivalent for their male

gods and heroes. Although the size and decorative shape of the three-lobed leaves make it a handsome choice, the marble belies its rough texture. Now it may be that the original carica leaves were smooth to the touch, but the current hybrids are not. In particular, the 'Brown Turkey' ('San Piero') has a distinctly sandpapery quality (even more so on the upper side) that would make such a protection most uncomfortable.

The original *F. carica* had another most unusual attribute. Pollinization was a very specialized process requiring the services of the capri wasp (so-named because it resided and bred only in the wild or capri fig). It was therefore necessary to have a constant supply of wasps to ensure the fig crop.

Today's gardeners need not import the wasp nor plant the capri fig. Our many carica hybrids have been developed to be self-pollinating and to bear twice annually. This double blessing is appreciated by those who prize the fruit crop. But there are some who are willing to forego the fruit along with the spatter on deck or paving. For such persons, the Smyrna is a perfect choice; lacking the capri fig and capri wasp, the tree will remain beautiful but barren.

Requirements vary for particular carica hybrids, but most thrive with full sun and good drainage, making unusually attractive specimen plants which can be kept confined to large containers, if so desired. □

THE SAN DIEGO zoo believes in giving nature a helping hand. In the case of the *Ficus nekbudu* (Zulu fig), located beside the flamingo lagoon, the assist is provided to allow aerial roots to descend to the ground, forming a new trunk. In Africa, *F. nekbudu*'s native habitat, the roots do just that, requiring no aid whatsoever. In the zoological gardens, curious or careless visitors often destroy the tender, tempting roots before they can accomplish their descent.

To foil the miscreants, Ernie Chew, zoo horticulturalist, has devised a special sleeve. A chicken wire funnel, lined with moss, encloses the root clusters where they form on the branches, then slides over a 3 to 4-inch diameter bamboo pole anchored a few inches underground. The bamboo has been hollowed out at the nodes and filled with wet sphagnum moss, thus creating a protected, moist channel for the developing root. After two or three years, the bamboo sleeve is split and the rudimentary trunk examined. If it seems sufficiently sturdy to withstand the human peril, the root remains free. (Actually, accessibility to the public is the major criterion in determining vulnerability.) If the horticulturalist has misjudged, and the root requires continued protection, the split bamboo is replaced and wired together. There is no danger of over-imprisoning the root. Once it becomes strong and thick enough, it will simply crack the bamboo and make its escape. S. S.



HYDRO HOUSE® OF SAN DIEGO
● GREENHOUSES
● HYDROPONICS
● WINDOW GARDENS
HOME AND COMMERCIAL APPLICATION
Available for Programs
C. STEPHEN PARKER
(714) 297-5930
5333 MISSION CENTER RD., SUITE 317 ● SAN DIEGO, CA 92108


A subscription to
California GARDEN
makes a nice Birthday Gift!

THE HUNTINGTON

LIBRARY • ART GALLERY • BOTANICAL GARDENS

1151 Oxford Road, San Marino, CA 91108



The Hungton Botanical Gardens
Sixth Annual
BENEFIT PLANT SALE

NEW AND UNUSUAL HOUSEPLANTS AND FERNS
RARE CACTI AND OTHER SUCCULENTS
UNCOMMON HERBS AND PERENNIALS
CHOICE PALMS, CYCADS, BAMBOOS AND PROTEAS
RARE ORNAMENTAL TREES, SHRUBS AND VINES
HARD-TO-FIND-ROSES, OLD AND NEW

SPECIAL COLLECTIONS FEATURED

- ★ *Variegated Plants*
- ★ *Choice Patio Plants*
- ★ *Old-Fashioned Plants*
- ★ *Good Shade-loving Plants*

TIME

9:00 AM to 4:00 PM
SUNDAY
SEPTEMBER 28, 1980

PLACE

THE PASADENA CENTER
Exhibition Hall (West)
300 EAST GREEN STREET
PASADENA, CALIFORNIA

A pre-sale will be held for members of the Friends. For more information about this support group, write Friends of the Huntington Library, 1151 Oxford Rd., San Marino, CA 91108.

CATALOG available for $1.50
Write: Plant Sale, Dept. C, Huntington Botanical Gardens, 1151 Oxford Road, San Marino, CA 91108.

Improved Strawberry Varieties

PLANT SCIENTISTS HAVE over the years been able to improve the productivity and quality of the fruit produced by the strawberry plant. Now another improvement has been made. Strawberry varieties in the past have flowered and fruited only after going through a period of short days and there has been no way by which this requirement could be by-passed. Now varieties have been bred that are described as being 'day neutral', that is, they will flower and bear fruit as soon as the temperature is suitable for growth and it is possible for these to bear fruit 90 days after planting, without going through the previously required period of shorter days.

There are three varieties, 'Aptos', 'Brighton', and 'Becker', all of which are considered suitable for home garden use. These have been patented and will be sold by retail nurseries. Strawberry plants are sold both bare-root in January and February and grown in soil in containers until early summer, so it may still be possible to start some of these this year.

The berries were developed by two University of California pomologists—Royce Bringhurst and Victor Voth. These two are responsible for most of our commercial varieties of strawberry grown in California. The 'day neutral' characteristics were obtained from a wild strawberry found in the Wasatch Mountains near Salt Lake City, Utah. G.J.

SAN DIEGO'S LARGEST NURSERY FACILITY

. . . with complete, personalized attention
to your every garden need . . .

Presidio Nursery and Florist

LINDA VISTA RD. at MORENA BLVD.
PHONE 297-4216

Antonelli Brothers

TUBEROUS BEGONIAS

2545 Capitola Road
Santa Cruz, California 95062

36-page Color Catalog 25 cents

A Garden Tour

by Bill Gunther

Photos by Bill Gunther



The long and invitingly rustic private front driveway to the Swann property sets the peaceful theme for the home and the garden. This is the front driveway to a place of quiet seclusion.

UP ON A hill near Fallbrook, in the quiet back country of San Diego County, there is a beautiful garden. It is not known to the public because it is not a public garden; it is a private garden, completely out of sight from any public road, isolated. It is the garden of HARRY and JOY SWANN.

The Swann garden is not open to public tours, but as a substitute for the real thing, let's just imagine that we are touring it as we read about it. Relax with this magazine in your favorite easy chair, let your imagination go, and enjoy a make-believe garden tour.

Slightly less than an hour after leaving San Diego, we are near Fallbrook at the front gate of the Swann property. The vehicular gate is wide open because it is daytime and because we are expected, so we drive in. For a time, the private driveway passes under the overhanging branches of big avocado trees, but very soon, on both sides, there are gardens instead of groves. Beds of irises and daylilies. Huge old live oak trees providing shade for ferns and azaleas and other flowering shrubs. A great diversity of decorative plants, all in a natural appearing setting. Along this driveway there is no need to post a sign reading "please drive slowly"; we already have slowed down to crawl-speed in order to gawk at the wayside attractions.



Lush growth abounds both beside and inside this ornamental pool in the Swann garden. A few feet away, at a higher level, is a second pool; the paired effect is a pleasure to view.



The unique yellow-green blossoms of the canary-bird bush, *Crotalaria agatiflora*, decorate the pool area of the Swann garden during an almost year-around blooming season. Native to Kenya, Africa, this small tree is a member of the pea family.

In its gradually upward course, the driveway makes a gentle turn to the right, and to the right we get our first glimpse, through an opening in the foliage, of the home in its garden setting. It is invitingly attractive. The home and the garden blend together harmoniously; both are informal; both are spacious but unpretentious. The driveway passes a few tall palms, then swings to the right and terminates at a parking area near the garage, where we are warmly welcomed. From this area, we start off on a walking tour of those areas of the garden which were not visible from the vehicle.

The walkways are inviting. The paths lead through the garden past beds of annuals, of perennials and of shrubs. Here and there are decorative trees, some of them in bloom. Some of the plants are native; others are exotics; but all seem to be in place just as if they always had been there, naturally. The number of plant species which have been brought together in the Swann garden is so large and varied that inevitably, at any time of the year, many will be at peak bloom even while many others are dormant or off-season. This is a garden to enjoy all year long; it is a gardener's garden. It is a garden for folks who enjoy gardening; not for those who consider it drudgery.

Very prominent are two large square water-lily ponds. They highlight part of the picture-view from the front rooms of the home, and the wooden walkways around them constitute a highlight of the garden tour. When we reach these ponds, we just automatically stop; to stop is the natural reaction. We all like water, and water fountains, and the beautiful plants which grow in the water, and the colorful fish which move about in the water. So we linger.

Beside one of the three outside decks which buttress the Swann home, the charm of a pendant Chinese dinner bell is beautifully enhanced by the dark green foliage and the fragrant white blossoms of the star jasmine, which, appropriately, also is from China. For those who might be interested, the proper botanical name for star jasmine is *Trachelospermum jasminoides*.





But time is up. The whistle sounds. The garden tour is over even before we have seen everything in the garden. Reluctantly, we return to our vehicles, and as we depart we appreciatively thank our hosts and wave our farewell to them.

It has been a pleasure. □

LEFT:
These three spheres are bright blue in color; they are the composite flower heads of a hybrid globe thistle, of the genus *Echinops*. Some of the flowers of the top sphere are open, all the others are in bud stage. This is one of the many interesting plants which grace the front-yard flower beds of the Swann garden.

BELOW:
From the picture windows and from the outside decks of the Swann home, the closeup view is of the adjacent garden, the median view is of the avocado grove, and the far view is of the distant hills. In reverse perspective, from the avocado trees toward the home, this is the scene from one direction.



For Sale

By Owners

Priced at $325,000
(714) 728-0874







This enchanting and secluded country estate of 5+ acres with beautiful views of the rolling hills of Fallbrook, California, is located in North San Diego County, about four miles from the center of town. Three of the acres are planted with mature avocados which have been consistently profitable. Figures are available. The home and land is completely fenced with a two-gate entrance, and a recently installed security and smoke alarm system is connected to the Fallbrook Fire Department.

The charming one-level, ranch style home of approximately 2400 square feet stands on a knoll and has three redwood decks totaling 860 square feet. The large glass walls of the living room and adjoining dining area both look out upon incomparable views. The family room has a cathedral ceiling, and both rooms have fireplaces and electric wall heaters. The compact and convenient kitchen has an adjoining laundry and sewing room. The bedroom wing, which is separated from the living area, has three bedrooms and two bathrooms, both of which have electrical heating. Two 80-gallon solar heaters provide an abundance of hot water. The main forced air heating system is powered by propane gas. The detached 2-car garage has a 550 gallon underground fuel tank with an electric pump.

The gardens and landscaping are an outstanding feature of the property. Two ornamental pools on different levels are surrounded with many tropical and subtropical plants. The pools contain exotic oriental koi fish, fountains, and water lilies. There are some steps leading down to a uniquely beautiful shade garden under a magnificent grove of oaks overlooking a small lake which can be kept at a consistent water level by a good well. It is artistically planted with camellias, azaleas, and many varieties of ferns. The gardens have easily operated irrigation systems.

Total privacy can be enjoyed in this beautiful property.

A colored brochure is available on request.

WINTER COLOR WITH ANNUALS AND PERENNIALS

by *Stwart H. Macdonald*

FALL IS A special planting time for the mild winter areas of California and the low deserts. Besides landscape plants like camellias, aloes, acacias, and poinsettias, annuals and perennials are also available for winter bloom. Many flowers that are spring and summer bloomers elsewhere are at their best in our winter season. While most of the country freezes, the cool, moist air and abundant sunshine give us our chance for winter color from old garden favorites. The following plants are reliable growers and are commonly available from nurseries and seed houses.

CALENDULA *(Calendula officinalis)*
Composite Family

Also called the pot marigold, this zinnia-like flower grows 1 to 2 feet high. Bright yellow or orange blooms, up to 4 inches across, are the most commonly seen, but shades of cream, lemon, apricot, and persimmon are also available. The blooms are sturdy and long-lasting, and make excellent cut flowers. Two good varieties are 'Pacific Beauty,' widely available as seedlings, and the completely double 'Zvolneck's Crested.' Seeds can be sown in flats or in the garden in late summer or early fall. Calendulas often reseed, so separate and transplant the previous year's offspring to stand 10 inches apart. With adequate drainage any soil will do. The flowers are effective in masses, borders, parking strips, or in containers.

CAPE MARIGOLD *(Dimorphotheca sinuata, D. aurantiaca*, and various hybrids)
Composite Family

These showy flowers are among several species that we usually call African daisies. There are dwarf forms with 4-inch white flowers, 4 to 12-inch plants with orange blooms, and taller hybrids with yellow, orange, rose, salmon, and white petals, shaded blue or lavender on the underside. The blooms close in dim light so are not suitable for cut flowers. Seeds can be broadcast in the garden like wildflowers in late summer or early fall, preferably in light soils with full sun. Cape marigolds need no fertilizing and require watering only during long dry spells. Leave their area dry in summer and seedlings will reappear with the winter rains, blooming about 8 weeks later. These bushy flower-covered clumps are useful in the drier portions of the garden as a ground cover, among shrubs, and in parking strips.

CANDYTUFT *(Iberis* spp.)
Mustard Family

One of the popular species, evergreen candytuft *(I. sempervirens)*, is a perennial. The common form grows over a foot tall with scented clusters of tiny, white flowers. Dwarf, wide-spreading forms growing to about 6 inches are also available. *I. amara* is a taller annual called the hyacinth-flowered candytuft. *I. umbellata*, also an annual, flowers in white, lilac, purple, rose, carmine, and dark crimson shades. [The standard type grows 12 to 15 inches high and named dwarf varieties to about 6 inches.] Seeds of annuals planted in the garden in fall will bloom in early spring. Make successive plantings for longer bloom period. Perennials set out as plants in early fall will bloom as early as November. Candytufts are excellent for cutting, and in borders, rock gardens and containers.

SWEET PEA *(Lathyrus odoratus)*
Pea Family

Among the most popular of all annuals, these fragrant flowers are available in pastels, deep shades, and bicolors. When planted during the traditional spring season, sweet peas soon mildew and wither in our early summer heat; but when planted in the fall they are among the most rewarding of annuals. As cut flowers they are long-stemmed, long-lasting, and fill rooms with their fragrance. Early Flowering Multiflora types should be planted around the first of September for bloom beginning about Christmas. Spring Flowering types should be planted from October through December as they require longer days for bloom. A dependable and showy variety is 'Royal' or 'Royal Family.' Several bush varieties which vary from 8 to 30 inches in height are also in the Spring

Flowering category. Soak the seeds overnight before planting. If your soil is good, elaborate preparation is not needed, but sweet peas do best if the soil is dug deeply with plenty of organic matter and fertilizer added. Regular feeding and frequent deep watering will produce spectacular blooms. Any type of trellis, strings, or wire can be used to support the 5-foot vines. In coastal areas a sunny fence or wall is ideal. Be sure to pick plenty of flowers and remove any seed pods that form.

SWEET ALYSSUM *(Lobularia maritima)*
Mustard Family

This plant forms low carpets of white, highly fragrant flowers and is so at home in mild-winter areas that it reseeds profusely and blooms the year round. Cultivated varieties are also available in lavender and violet shades. Sweet alyssum will grow in anything that can reasonably be called soil. Seeds can be planted any time during the fall or winter and will bloom within 6 weeks. While the plants will cheerfully survive on winter rains, occasional watering will encourage denser growth. They can tolerate some shade. Sweet alyssum makes a good ground cover in low-maintenance areas, among rocks and flagstones, or as a cover for spring-flowering bulbs. Other uses are as a low edging plant or with other plants trailing from a hanging basket.

STOCK *(Matthiola incana)*
Mustard Family

In many parts of the country stocks have a reputation for being difficult to raise, but like other members of the cabbage family they grow easily if given a long cool season. Like cabbages, they take a long time to maturity but will withstand moderate frost. Plant seeds in late summer or buy plants to set out in early fall. The flowers come single or double, sweetly scented, in soft shades of purple, pink, and cream. Growing 1½ to 2½ feet tall, stocks in purple or lavender make a good background for calendulas and sweet alyssums. The flower spikes are also good for cutting. Plant in fairly light soil; give plenty of moisture and an occasional feeding.

SNAPDRAGON *(Antirrhinum majus)*
Figwort Family

An old favorite, the snapdragon now comes in a variety of flower shapes as well as a wide assortment of cheerful colors. When you buy them, be sure to check the plants' mature size since cultivars range from the 6-inch 'Pixie' to the 3-foot 'Rocket,' 'Tetra,' and others. Seeds planted in the open ground can be difficult, so plant seed indoors in flats or buy seedlings which are available in many varieties. Look for rust-resistant types and avoid overhead sprinkling. Have plants ready to set out in early fall. A light, rich, and moist soil is best. For bushier plants with more flowers, pinch out the central bud while they are quite small. Depending on the size, snapdragons may be used for low borders or tall backgrounds, but all create a striking effect. The cut flowers are also very bold in arrangements.



Johnny-jump-up *Photo by Barbara Jones*

ICELAND POPPY *(Papaver nudicaule)*
Poppy Family

These poppies are actually native to Siberia. With their long, wiry stems and colorful paper-like petals they are charming flowers. We grow them as winter annuals, though technically they are perennial. Lemon, orange, white, and salmon are the usual colors and 'Champagne Bubbles' is a dependable and showy variety. Seeds should be planted in early fall; they are

tiny and must be kept moist without being washed away. Seedlings are available in nurseries but must be transplanted carefully. Iceland poppies are often seen in mass plantings but are handsome in small groups where they can be seen close up. They last well as cut flowers if the ends are seared with a flame before placing in water.

FAIRY PRIMROSE *(Primula malacoides)*
Primrose Family

These dainty flowers thrive on cool, moist weather and grow better in mild climates than the traditional English primroses. The leaves form a rosette from which the flower stalks rise 12 to 15 inches. Flower colors are bright tints of pink, rose, red, lavender, and white. Plants are available to set out in October and November. They like rich soil and plenty of water, but avoid soaking the center of the rosette. Fairy primroses are not difficult to grow and make a nice accent by themselves or in a border.

CINERARIA *(Senecio hybridus)*
Composite Family

Like many of our other subtropical plants, cineraria comes from the Canary Islands. Broad green leaves and 3 to 5-inch daisy-like flowers make this a spectacular plant. Height is 12 to 15 inches for these large-flowered hybrids. Colors are remarkably bright reds, blues, purples, and white. Plant in shady, rich, cool soil, preferably on the acid side. Feed after the buds open with blood meal. Plant from seed in late summer or seedlings in fall. Cinerarias are bold accent plants for containers and patios, and are striking with ferns.

PANSY *(Viola* spp.)
Violet Family

Pansies, violas, and Johnny-jump-ups are all closely related perennials generally grown as annuals in mild-winter regions. The familiar garden pansy has the largest flowers of the three, with those of hybrid varieties 2 to 4 inches across in rich velvety colors and combinations. Violas are smaller versions in solid colors of white, red, apricot, yellow, purple, and blue. Johnny-jump-ups are low-growing with tiny flowers commonly seen in a violet-yellow bicolor although other colors are available in new strains. They will reseed themselves. Seeds of all three pansy types should be sown in late summer. Being very popular plants, a wide variety of seedlings are also available for fall and winter planting. Pansies like good soil and can take some shade. All three types make cheerful borders, ground covers for bulbs, or colorful container subjects.

NEMESIA *(Nemesia strumosa)*
Figwort Family

This South African native is unfamiliar to many people, but it is an intriguing flower that leads garden visitors to ask its name. The cup-like blooms appear in clusters 3 to 4 inches across and come in a remarkable variety of rich, bright colors. Plant seeds in fall; the plants grow rapidly. Any kind of soil will do if kept moist but not wet. Nemesia grows 10 to 18 inches high and is attractive in hanging baskets, as a cover for bulbs, and as accent plants. Blue lobelias and violas are suggested companions. Plants can be sheared to encourage repeated flowering.

ANNUAL PHLOX *(Phlox drummondii)*
Phlox Family

Showy flower clusters held on 6 to 8-inch stems are the main attraction of annual phlox. Many colors and pastels are available, including bi-colors. 'Art Shades' strain has flowers of delicate, soft pastels. 'Starred and Fringed' strain has fringed and pointed flowers. Dwarf forms include 'Beauty' and 'Twinkle,' which grow about 6 inches high. Any soil with good drainage will do; avoid overwatering. Plant seeds in fall. Dwarf varieties make good low borders and taller ones are useful in rock gardens, beds, and mixed with taller and lower flowers. Keep faded flowers picked for continuous bloom.

AGERATUM *(Ageratum houstonianum)*
Composite Family

This plant with its dense clusters of furry flowers is also called the floss flower. The soft, hairy leaves and showy blooms in white, pink, lavender, and violet-blue blend well with many other flowers. Try combinations with sweet alyssum, or blue ageratum with salmon pink annual phlox. Ageratum is usually planted in late summer for fall color but can be planted through the fall from plants available in nurseries. A reliable grower, it will bloom almost continuously in frost-free areas. Transplanting is easy and can be done while the plant is blooming. Dwarf varieties (4 to 6 inches) are good for low edging, or forming patterns with other low-growing flowers. Taller varieties (9 to 12 inches) do well in containers or borders.

CHINESE PINK *(Dianthus chinensis)*
Pink Family

These carnation-like plants grow from 6 to 30

inches high with flowers on tall, erect stems. Colors include crimson, red, pink, maroon, salmon, lilac, and many combinations of petal markings. The petals range from smooth to deeply fringed. 'Queen of Hearts' is a recommended red variety, while 'Magic Charms' has the full range of colors. Full sun is necessary, and the alkaline soil typical of the west is preferred. Set out plants or seeds in fall. Pinks are spectacular in masses, make good cut flowers, and are attractive for edging, on banks, and among rocks.

BUTTERFLY FLOWER *(Schizanthus pinnatus)*
Nightshade Family

This "poor man's orchid" bears tall, delicate sprays of multi-colored flowers. The small blooms come in combinations of white, pink, purple, carmine, and yellow. Height is 1½ feet and up. The sparse, fern-like foliage suggests its use with lower, more lush plants. Rich, well-drained soil is ideal. Set out plants or use seeds, but make repeated plantings for longer-lasting bloom. Pinch back growth buds for bushier plants. Butterfly flower blends well with fairy primrose and cineraria. Other uses are in containers, hanging baskets, and window boxes where the showy, tumbling blossoms may be seen near eye level.

NASTURTIUM *(Tropaeolum majus)*
Nasturtium Family

One of the nicest sights in the garden is surely that of orange and yellow nasturtiums draped over a rock wall. These popular, old-fashioned plants are also among the easiest to grow. Vining types grow to 6 feet; dwarfs are bushy and 15 inches high. Flower color includes creamy white, salmon, cherry, and mahogany as well as all shades of yellow, orange, and orange reds. Any soil will do as long as plants are not overwatered or fertilized. Roland Hoyt wrote about the nasturtium "sprawling in the garden or over waste places, having a strange preference for dumps where it masks the crumbling debris and thrives with its roots deep in the relaxing chaff." The climbing type cover fences, banks, stumps, and rocks, blooming all the way. The low types, which include 'Dwarf Single' and the double 'Dwarf Jewel' are good bedding or container plants. The leaves, flowers, and young seed pods are all edible and have a clean, peppery taste. □

STUART H. MACDONALD is a landscape architect currently working in Colorado.

G.S. JOHNSON ROSE NURSERY
Rose Specialists
Bushes - Climbers - and Tree Roses
Bare Roots in Season
in cans, available all year
Spray Materials and Fertilizers
24 YEARS IN SAME LOCATION
8606 Graves Ave., Santee, CA 92071 — Off Highway 67
corner Graves & Prospect — Phone: 448-6972
Open 8 A.M. to 5:30 P.M. — Closed Wednesdays

Walter Andersen Nursery Since 1928
Nursery Stock and Garden Supplies for Beautiful Gardens
We Specialize in Indoor Plants


Free
GARDEN CLASSES
9:a.m. Thurs. & Sat.
3642 Enterprise
San Diego, CA 92110
224-8271

DRIP WATERING FOR LANDSCAPING
Drip Watering is an exciting, new plant watering concept, that provides convenience along with water saving features, which enhance plant establishment.
COMMERCIAL AND RESIDENTIAL LANDSCAPING APPLICATIONS
CALL OR WRITE FOR FURTHER INFORMATION.
A DEALER FOR REED IRRIGATION SYSTEMS
TRICKLE SOAK SYSTEMS
8733 Magnolia #109, Santee, CA 92071, (714) 449-6408

Artistic Pruning
By
Jim
226-1963

SOME THOUGHTS ON PROPER IRRIGATION



by E. Robert Bichowsky

WITH HOT WEATHER the need for correct irrigation is essential. In the landscape the majority of plant problems are due to either too much or too little water. An understanding of how water works for plants is essential. Confusion arises from thinking that plants use water the same way people do. Actually, a plant's thirst is quite different from our own. Many people conceive of a plant's getting water as the botanical equivalent of sipping soda through a straw, but that is not how it works. In the first place, water is not a liquid to a plant, it is a gas. That is why scientists speak of "soil moisture" rather than "soil water." From a root's point of view, if a root could see, the subterranean landscape would be a foggy, jumbled scene of water-coated soil particles with atomized moisture rising as vapor in the voids between them. It is this vapor, not the liquid water, upon which plants depend.

After a heavy rain there may be too much water in the top foot of soil. All the little voids are filled with water in its liquid form. If this condition continues too long, say for several days of heavy rains, the plants may drown in the abundant but useless water; they wilt and show the same signs of water deprivation that they would in a drought. Only after some of the water percolates away and air spaces reappear in the soil can the plant make efficient use of the remaining moisture.

Plants grow best at "field capacity," the amount of moisture that the soil retains for a few days (or hours, depending on the type of soil) after a deep irrigation or a soaking rain.

It is not necessary, however, to maintain the water supply at field capacity. The benefits of soil moisture are available from field capacity almost down to the "wilting percentage," but with increasing effort on the part of the plants. Not until the plant has used up two-thirds to three-fourths of the available soil moisture does it begin to show marked distress. After that, the difficulty of pulling water into the root increases sharply. Before the plant wilts, however, it stops growing.

If the soil is poorly suited to accepting and retaining water so that plants can use it efficiently, there are ways to amend its structure. The addition of organic matter will create air spaces in heavy soil and also help hold water and nutrients in light soil. In any permanent planting it is essential that the proper amending be done at the start because there is no way to change the soil once the plants or turfgrasses are growing. However, soil penetrants are helpful in getting water to soak into compacted soils.

You probably know that the first rule of proper irrigation is to wet the soil deeply. What you may not appreciate is that adequate watering is not nearly as simple as it sounds. Under the best of conditions water takes a long time to get down where it is needed. An example is your intention to water the soil to a depth of 1 foot. The amount of water required to do this varies for different soils. Wetting sandy soils to 1 foot takes 3/4 of an inch of water, loamy soils 1½ inches, and clay soils 2½ inches.

The rate in which water enters the soil, called the infiltration rate, also varies by soil type. Soils with rapid infiltration rates—sandy soils and silt loams, for example—will accept from 0.15 to 0.30 inches of water per hour. This means that getting 1.5 inches of water into a foot of loam will take at least 5 hours, and that calculation assumes that all water put on the soil soaks into it, with no runoff and no evaporation loss.

The time of day you water matters not to the plants. They need water equally at night when they are growing and during the day when they are making food. What matters most is that you take the time to get water deep into the soil, and that your soil is properly conditioned to accept moisture. A soil probe is the tool for checking on moisture penetration. By using a probe to determine the watering interval you can usually lengthen the time between irrigations and reduce the overall usage of water. □

Mr. Bichowsky, horticultural advisor and turfgrass specialist for a local wholesale firm, also serves on advisory boards for San Diego Mesa College, Horticultural Department; San Diego Unified School District; and Grossmont College's agricultural programs.

THEVETIA

Photos by LARRY PAUTLER

by *Allethe Macdonald*

A Tree of Spectacular Beauty

A SMALL SUBTROPICAL tree of exceptional beauty is *Thevetia thevetioides*. Clusters of large clear yellow blossoms appear at intervals from spring to late fall in a Mediterranean climate and throughout the year in the tropics.

Thevetia is an evergreen shrub or small tree that fits neatly into small garden landscaping. Its trumpet-like flowers are 3 inches long and up to 4 inches across with the broad lobes twisted, as in oleanders. While it does not bloom as profusely as oleander, the blooms are so spectacular their beauty would be lost if borne in masses.

The light milky green leaves are long and narrow with a deep-set veining that gives the edge a stitched appearance. On the underside they are downy. The fleshy 1-inch triangular green seed pods are especially attractive to the curious.

According to the late Roland Hoyt, FASLA, "*T. thevetioides* was introduced to southern California sometime in the 1930's by the late Hugh Evans. At least he had the first block of nursery stock of any size, and his generous dissemination, whether for money or for love, was the source of the plants that are now (1960's) coming into flower and attracting so much attention." Mr. Hoyt highly recommended thevetia for its unusual beauty in bloom and for its interesting, relatively sparse foliage giving it an open character with little or no pruning or thinning needed. It can be grown as a multi-trunked shrub or a single-trunked tree, though it is more commonly grown as a tree.

Thevetia should be pruned and handled as ones does the widely grown oleander with full awareness of the toxic quality of all its parts, especially the milky sap and fruits. These plants both belong to the same family.

In our subtropical climate the showy full heads of bloom depend on warmer weather. I have seen some bloom on trees in San Diego as early as May and as late as November. As long as warmth is assured, thevetia is not particularly choosy about growing conditions. Plant it in full sun in well-drained, sandy soil and water generously. It has few if any pests.



The green 1-inch triangular seed pods are especially attractive to the curios



The trumpet-like flowers of clear yellow are about 3-inches long and up to 4-inches across.

Though *T. peruviana* flowers earlier and more freely in warmer inland areas, its yellow or apricot-colored flowers are much smaller. It usually grows as a multi-trunked shrub and is slightly more frost-tolerant than *T. thevetioides*. Neither is recommended where frost is a problem.

Where these or any other tropicals are grown out of doors remember that cold air drains from higher ground to lower. These plants normally will show no inclination to become dormant, with the ensuing hardening process that helps withstand chill. The gardener can promote dormancy by withholding water and fertilizer sometime during the late summer so that growth will be checked. The ground should be moist, either from early rains or applied irrigation, as fall enters into winter. This places plant cells in good fettle to give up moisture to frost and survive the period with minimum damage. A fine spray of water over a treasured plant in the early morning after frost may save it. Or if it has been planted against a warm wall, the stored heat given off through the night will help neutralize the cold. However, in coastal areas frost is seldom a cause for concern.

A tree that has spectacular bloom, interesting foliage, few if any pests, grows relatively fast but not taller than 15 to 20 feet, is an ideal specimen plant for any garden. □

San Diego
Floral Association
invites you to join us
MEETINGS • WORKSHOPS
LIBRARY • INFORMATION SERVICE

Membership Rates:
(Magazine included)

INDIVIDUAL	$ 7.50 ☐
FAMILY	8.50 ☐
SUSTAINING	10.00 ☐
CONTRIBUTING	25.00 ☐

(Please PRINT)
Name: _____

Address: _____

City: _____ State: ____ Zip: ____ Phone: ____

California
GARDEN
Since 1909

★California's oldest garden magazine
★Flower, fruit and vegetable talk for the neighborhood gardener
★Authoritative information for the serious student of horticulture

The perfect gift to a friend, relative or neighbor

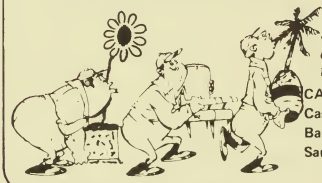
1 YEAR SUBSCRIPTION $4.00
2 YEAR SUBSCRIPTION $7.50

San Diego Floral Association
Casa del Prado, Balboa Park
San Diego, CA 92101

W. C. Studebaker
CONSULTING ARBORIST
TREES
Complete Service
State Lic. 273813 PL PD INS
• RESIDENTIAL
• COMMERCIAL
• CONSTRUCTION
– 15 Yrs –
S D City Tree Supv
– 35 Yrs –
Practicing Tree Surgeon
277-9045

LICENSED DEPENDABLE
"Experienced Nurseryman"
James W. Watson
GARDEN PLANNING AND DESIGNS
RESIDENTIAL LANDSCAPE CONSULTANT
INDOOR PLANT SERVICE & SUPPLIES
COMPLETE LANDSCAPE
INSTALLATION & MAINTENANCE
714 295-0963 (Eve.) FULLY INSURED

MOVING ?



Send your change of address to . . .
CALIFORNIA GARDEN
Casa del Prado
Balboa Park
San Diego, CA 92101



Balm: soother of nerves and reliever of tensions! According to ancient lore one picked it only while music was played to distract the snakes guarding it. Balm was used as an amulet. The whole plant, root, leaves and seed were sown into a piece of linen with a silk thread and the wearer was loved by all she met, had her wishes fulfilled and was happy and gay. Now you can well ask, which came first, the word, or the herb?

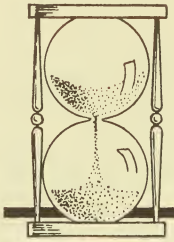
(714) 448-0659 Open weekends 1 to 5 p.m.
Weekdays by Appointment

Hardy & Fouquette Orchids
WHERE YOU FIND THE UNUSUAL
Along With The Usual

Carlton Hills 9443 E. Heaney Circle
Santee, CA 92071

A cultural calendar of care from our affiliates–

compiled by *Penny Bunker*



NOW IS THE TIME

BONSAI Dr. Herbert Markowitz

Now is the time–

- to adjust watering schedule according to changing weather; keep well watered if continued warm; if temperature falls, take care to not overwater.
- to move deciduous trees to a cool shaded area if you live in southern California, so they will not sprout new growth.
- to fertilize only lightly in September and then not at all in October. Stop to encourage trees to get ready for winter dormancy.
- to feed ½ strength fertilizer to those trees still showing signs of being in their growth cycle (showing new leaves or buds, etc.).
- to transplant those specimens requiring a change of pot or new soil, but no drastic removal of root system–wait until spring.
- to trim conifers and pines. Also trim and shape your deciduous trees.
- to check wiring–remove if they are cutting in. If not removed, they will cause the branch to die during the winter. Any wiring of small branches should be done most carefully as the branches are less flexible than in summer months.

BROMELIADS Dr. Norman Lurie

Now is the time–

- to keep surrounding areas damp to maintain humidity on hot dry days.
- to protect plants from hot winds–to shade them from intense heat and do morning misting.
- to feed carefully with ½ strength balanced fertilizer.
- to maintain pest control against snails and scale.
- to remove offsets to increase your collection.
- to flush out plants and keep moist without filling cups.
- to keep your blooming plants indoors or place where cool, so the infloresence will last longer.

CACTI & SUCCULENTS Verna Pasek

Now is the time–

- to repot rootbound plants. Watch for roots growing through drainage holes.
- to divide overgrown plants and propagate new growth to increase your collection; can also trade or share with friends.
- to feed with low nitrogen fertilizer.
- to watch for scale and mealybug. Spray will full strength alcohol or can remove by dabbing on with cotton swabs.
- to guard against insects, snails, and protect new growth from sun scald.
- to keep the moisture level up if Santa Ana winds occur.

CAMELLIAS Les Baskerville

Now is the time–

- to keep plants moist but not wet–do not allow plants to dry out during hot, dry windy weather.
- to disbud leaving no more than one bud to a tip.
- to start feeding monthly with 2-10-10 fertilizer.
- to give a feeding of iron.
- to maintain a regular spraying program.
- to start "gibbing" hybrids and reticulatas about the first of September.

DAHLIAS Abe Janzen

Now is the time–

- to maintain a regular watering program until first of October, then cut down gradually.
- to maintain a regular spraying schedule–watch for red spider and mildew.
- to feed with potash to promote root growth–aids tubers to keep better during winter.
- to clean up old leaves and stalks, preparing for fall and winter storage.

EPIPHYLLUMS Mary & Warren Kelly

Now is the time—

- to spray mist to provide moisture during warm spells and to keep stems clean and free of dust.
- to take cuttings in September—July and August are best months.
- to overhaul plants—trim out all dead growth. Some die-back is natural.
- to stake up growing plants and tie carefully to a trellis if growing upright.
- to repot any overcrowded plants.
- to fertilize with 5-5-5 once more before winter rest period.
- to check for snails and slugs (the new "Sluggeta" works).
- to spray with insecticides such as malathion for insect control during winter months.
- to start watering and feeding Christmas cactus.

FERNS Ray Sodomka

Now is the time—

- to avoid direct sun, but give maximum light. Maintain temperature of 70° – 78°.
- to water and maintain humidity by keeping surrounding areas damp.
- to check shade cloth or whatever material is used for shade, and repair—remember the fall sun is still warm.
- to fertilize once with a high nitrogen fertilizer.
- to plant fern spore of all varieties.
- to trim off dead fronds, keeping plants well groomed.
- to check for aphids, mealybug, and scale; may use malathion-50. Keep snails, pillbugs and slugs under control—use metaldehyde granules.
- to feed your house fern (Boston fern) with 1/8th strength fertilizer every week—maintain humidity around your plant with saucer pots or "pebbled" saucer.
- to repot your house fern to next size pot if overcrowded.
- to check nurseries and discount stores for new varieties or special ones you may have lost.

FUCHSIAS William Selby

Now is the time—

- to mist plants during hot Santa Ana days—but do not overwater.
- to pick off all spent blossoms and seed pods.
- to continue fertilizing for winter bloom.
- to spray for insect control—be sure to wet the underside of leaves as these are hiding places for egg laying.
- to take cuttings from good healthy branches, using only only the tender tip growth; October is better month to propagate new plants.
- to keep cuttings damp but NOT wet.
- to leach out salts from your pots, then give plants a shot of acid fertilizer.

GERANIUMS Carol Roller

Now is the time—

- to feed with a balanced fertilizer dissolved in water—use at ½ strength twice as often or as needed to prevent deficiencies.
- to water when plants become somewhat dry—water thoroughly so the excess flows out the drainage openings.
- to continue a pest control program for sucking and chewing insects and snails and slugs; use products according to the manufacturers' directions.
- to keep plants free of debris by removing faded flowers and discolored leaves.
- to begin pruning. On regals and similar types, at least one green leaf should be left on each stem.
- to make cuttings and give them shelter from extreme elements.
- to continue to rotate pots on a regular basis in order to produce symmetrical plants.

GESNERIADS Mike Ludwig

Now is the time—

- to watch for dry, hot weather as it means more watering, and red spider will be a problem; spray with kelthane.
- to watch that shade remains on the plant as the sun is changing its position.
- to give less food to keep tender growth arrested until after winter cold.
- to sterilize greenhouse, getting ready to bring the plants therein.
- to withhold water from the achimenes as they go into winter dormancy. Store the rhizomes in their pots or "harvest" them and store in slightly moist vermiculite.
- to check your African violets; have a plant three times larger than the pot—means a 12-inch plant can be in a 4-inch pot. Repot accordingly.
- to check and control pests. Be sure to check new plants you may get and those you might bring inside from outdoors so you do not spread disease and pests to your indoor plants.

HEMEROCALLIS (Daylilies) Sanford Roberts

Now is the time—

- to water plants only if soil is dry. Extremely hot days and copious watering can induce rot easily. Once soft rot has begun in a clump—dig up entire clump, dry out the fans by burying in sand that is not moist, then replant in late fall.
- to remove dead bloomstalks and foliage to clean growth

of aphids and other insects that may seek refuge in masses of spent foliage.
- to prepare planting areas for spring's plants—spade deeply and incorporate organic compost. Mix thoroughly.
- to plant seed in good potting soil in 4-inch pots or larger, and water soil thoroughly to promote satisfactory germination. Wait until warm days of spring before planting seedlings in garden.
- to wait until February to divide crowded clumps. Better growth is obtained by early spring divisions and re-planting.

IRIS
San Diego—Imperial Counties Iris Society

Now is the time—
- to still divide and plant clumps of bearded iris.
- to feed established tall-bearded iris.
- to control slugs and snails.
- to plant beardless iris—Spurias, Siberians, Louisianas, and Japanese varieties. Keep moist until well established. Louisianas and Japanese are grown in pots with pools or swampy conditions.
- to clean up beds and discard old fans and debris.
- to plant in October the Dutch bulbous iris for spring bloom.
- to trim the unguicularis back so flowers may show.

ORCHIDS
Charlie Fouquette

Now is the time—
- to feed cymbidiums low-nitrogen fertilizer.
- to beware of the hot, dry Santa Ana winds—maintain humidity and moisture. Watch humidity controls in hot houses. With hot weather you may have to increase percentages as outside humidity decreases and the heat increases.
- to water and watch phals for drying out. To keep moist as they have no water storage facilities. They should still be putting on new growth.
- to spray equitant oncidiums once or twice a day, being sure that they are dry by nightfall.
- to stop feeding Nobile Dendrobiums any nitrogen fertilizer—continue light feeding of 0-10-10 or 0-20-20; taper down as weather turns cool and days get shorter. Nobiles should be held at a temperature about 40° plus or minus, for about four weeks, being sure that a sudden plunge does not freeze them. This will help heavier bloom in spring. If they are too wet and it freezes; there is a greater chance for damage than if they were barely dry.
- to prepare cattleyas for blooming period—make sure they are staked and if replaced on the bench, see that they face in original direction, so flowers will not be twisted.
- to check for biting and sucking insects.
- to spray for ants as they bring in aphids and mealybug. Use chlordane if available. Be sure to wash hands and face.
- to be aware that the sun has moved to the south and is lower in the sky—protect plants from burning.
- to pull "catasetums" out of pots when bulbs have dropped last leaves and dry until new roots show, then repot in spring.
- to remember now is time to order new equitant oncidiums and Yamamoto nobile hybrids along with "phals", vandaceous and cattleyas. It takes as much time to raise a doggy plant as to raise a quality one.

ROSES
Brian Donn

Now is the time—
- to do a thorough clean-up spray for mildew, rust, control of insects and worms. (Funginex is excellent.)
- to control mites, do a thorogh drenching spray with kelthane.
- to continue your feeding program until mid-October.
- to water well during blistering Santa Ana conditions.
- to clean-up any debris, especially spent foliage, from around the rose bushes.

VEGETABLES
George James

Now is the time—
- to make the first planting of the cool season vegetables for winter by setting started plants of cabbage and its relatives and celery. Plant seeds of mustard, peas, lettuce, and the root vegetables.
- to water deeply, as needed, instead of frequent light sprinkling—this will save both water and labor.
- to harvest vegetables now bearing heavily so they are in prime condition when used and the bushes and vines are encouraged to bear longer.
- to fertilize, as needed, so that plants grow vigorously and bear larger and more succulent edible parts.

Mission Hills Nursery

A COMPLETE NURSERY

295-2808

- Plants
- Fertilizers
- Insecticides
- Garden tools

Visit our exotic greenhouse!

Frank Antonicelli
Owner

1525 Ft. Stockton Dr.
San Diego, CA 92103

Do You Know This Plant?



Scientific Name: *Chrysanthemum parthenium*
Commonly called 'Feverfew'.

Habit: Perennial, to one foot tall.

Forms: Single, white rays with yellow disk; double white (illustrated); 'Golden Ball', yellow flower heads with no rays; 'Golden Feather', with chartreuse foliage.

Foliage: Aromatic, fernlike, diversely torn and jagged, nicked at the edges. "The flowers stand at the tops of the branches, with a small pale of white leaves set round about a yellow ball or button, like the wild field daisy," according to Gerard, and he states further that it is called "in English, feverfew, taken from his force of driving aways agues."
(The Herbal. John Gerard. 1633.)

Research and photo by Helen Chamlee

Private Collection

Palms

CYCADS RHAPIS CHAMADOREA
TRACHAECARPUS TAKIL

Various Sizes & Prices

Joe Gorszwick
(714) 729-3637
4245 Clearview Drive Carlsbad, CA 92008



A subscription to
California GARDEN
makes a nice Birthday Gift!

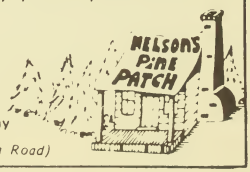
A VISIT TO OUR
MAGAZINE ADVERTISERS
CAN ANSWER MANY OF
YOUR GARDENING QUESTIONS

SPLENDID TREES FOR LANDSCAPING
(container grown)

Cherries and Apples adapted to warm climates

Eighty pine varieties, plus cedars, sequoias, natives.
Wide variety of citrus, cherimoyas, avocados, and kiwi fruit vines.

4301 Lynwood Drive
Chula Vista, CA 92010
Open 9 to 5 422-2400
Closed Monday & Tuesday
(just east of Hwy. 805 & Bonita Road)





BOOK REVIEW

By *Russell P. MacFall*

DESERT ANIMALS by Knut Schmidt-Nelson. Dover Publications, Inc., New York, 1979, 277 pages, $5.00

Like such plants as cacti, some animals can resist the stress of heat and lack of water in the desert better than others, such as man. Professor Schmidt-Nelson, of Duke University, explains that the camel, as an example, has an elastic range of body temperature, furry insulation on its hide, and a remarkable circulation that makes it the ship of the desert. Cats survive better than dogs, partly because they cool themselves by licking the fur and because they can tolerate brackish water. The book ranges in detail over the physiological characteristics of many other animals, reptiles and birds, with photographs, graphs and an exhaustive bibliography. It was first published by Oxford University Press in 1964. □

FOREST TREES OF THE UNITED STATES AND CANADA AND HOW TO IDENTIFY THEM by Elbert L. Little, Jr. Dover Publications, Inc., New York, 1979, 71 pages, $2.00

This admirable small manual was first published by the United States Forest Service in 1978. Mr. Little, retired chief dendrologist of the Service, has chosen 204 important forest trees for detailed identification. Of them, 180 are trees of the eastern United States and the rest are from the West, Hawaii and elsewhere. For each he gives a small drawing of the leaf and seed or other important part, a map of the range of the species, as well as a succinct description, the tree's botanical and common names, and the major uses of its wood. A good companion for that hike in the woods. □

THE ANATOMY OF NATURE by Andreas Feininger. Dover Publications, Inc., New York, 1979, 175 pages, $6.95

"It is the purpose of this book," writes its author, "to document the unity of natural things, their interdependence, and their similarity; to show the beauty of the living functional form.....to make you feel related to the rocks and plants and animals..... a part of the universe." The 176 black and white photographs, in folio size, range from cosmic gas clouds to spider webs through an amazing choice of natural forms which Feininger suggests have an essential unity. Many of the photographs first appeared in *Life* magazine. The volume closes with the author's advice about equipment and techniques for natures photography. □



helps you make beautiful music
for all your masonry needs.
Whether it is a speedy
"Rock 'n Rollin' " delivery,
loading your car in our sales yard,
technical sales assistance,
a happy voice when you call our sales office,
or manufacturing precision bloc and bric.

BLOC HAZARD BRIC

Our people are employed by Hazard, BUT they work for YOU!

SAN DIEGO
I-163 at Friars Road, Mission Valley • 297-4141

•

EL CAJON
1155 Vernon Way, El Cajon • 448-7411

•

SOUTH BAY
Fifth and "C" Street, Chula Vista • 427-2062

RETURN REQUESTED
RETURN POSTAGE GUARANTEED

CALIFORNIA GARDEN (USPS 084-020)
San Diego Floral Association, Inc.
Casa del Prado, Balboa Park
San Diego, CA 92101

SECOND CLASS POSTAGE PAID AT SAN DIEGO, CALIFORNIA

"Beauty and the Beasts V"

Fifth Annual
FLOWER SHOW and PLANT SALE

sponsored by
The Wild Animal Park
and
The San Diego Floral Association

at
Wild Animal Park, San Pasqual
October 11–12–13, 1980
10:00 a.m. to 4:00 p.m.

Exciting Plant Sale!
Many rare and unusual plants will be available!

Everyone Welcome! *No Extra Charge!*

San Diego Wild Animal Park